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10/502,108	12/27/2004	Adriaan Cornelis Kweldam	821405-1010	4000
24504 7590 12/03/2008 THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 600 GALLERIA PARKWAY, S.E. STE 1500 ATLANTA, GA 30339-5994				
EXAMINER				
BEKKER, KELLY JO				
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12/03/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/502,108

Applicant(s)

KWELDAM, ADRIAAN CORNELIS

Examiner

Kelly Bekker

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-14 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-14 and 21-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Amendments made August 21, 2008 have been entered.

Claims 1, 2, 4-14, and 21-27 remain pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The 112 2nd paragraph rejections of claims 1, 2, 4-14, and 21-27 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention have been withdrawn in light of applicant's amendments made August 21, 2008.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Withdrawn Rejection(s):

The rejection of claims 1, 4, 9, 10, 14, 23, 24 and 25 under 35 U.S.C. 102(b) as being anticipated by Tetsuo et al (US 3627536) has been withdrawn in light of applicant's amendments made August 21, 2008. Specifically, the reference does not teach that the composition of step b is formed in the presence of a calcium complex forming agent as recited in instant claim 1.

The rejection of claims 1, 4, 5, 7, 9-12, 14, and 23-26 under 35 U.S.C. 102(b) as being anticipated by Shenouda (US 4423083) has been withdrawn in light of applicant's amendments made August 21, 2008. Specifically, the reference does not teach that the composition of step b is formed in the presence of a calcium complex forming agent as recited in instant claim 1.

Maintained/New Rejection(s):

Claims 1, 4, 5, 8, 9, 14, and 23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Monsanto et al (WO 96/13177). The references and rejection are incorporated herein and as cited in the office action mailed February 1, 2008.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Withdrawn Rejection(s):

The rejection of claims 2, 6, and 27 under 35 U.S.C. 103(a) as being unpatentable over Shenouda (US 4423083) has been withdrawn in light of applicant's amendments made August 21, 2008. Specifically, the reference does not teach that the composition of step b is formed in the presence of a calcium complex forming agent as recited in instant claim 1.

The rejection of claims 1, 4, 5, 11-13 and 23-26 under 35 U.S.C. 103(a) as being unpatentable over Visser et al, (US 4118520) in view of Shenouda (US 4423083) has been withdrawn in light of applicant's amendments made August 21, 2008. Specifically, the references do not teach that the composition of step b is formed in the presence of a calcium complex forming agent as recited in instant claim 1.

The rejection of claims 21 and 22 under 35 U.S.C. 103(a) as being unpatentable over Tetsuo et al (US 3627536) in view of Lusas et al. (US 5300312) has been withdrawn in light of applicant's amendments made August 21, 2008. Specifically, the reference does not teach that the composition of step b is formed in the presence of a calcium complex forming agent as recited in instant claim 1.

Maintained/New Rejection(s):

Note: The newly added rejection was necessitated by applicant's amendments made August 21, 2008.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monsanto et al (WO 96/13177) in view of Lusas et al. (US 5300312). The references and rejection are incorporated herein and as cited in the office action mailed February 1, 2008.

Claims 1, 2, 4-14, and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shenouda (US 4423083) in view of Monsanto (WO 96/13177).

Shenouda teaches a method for the preparation of a gelled protein product which is a meat substitute product (Abstract, Column 2 lines 1-5 and 41-49). Shenouda teaches that the method of preparing the product comprises: combining a milk protein, including whey protein (Column 2 lines 50-68), 0.25-3% sodium alginate, i.e. a hydrocolloid which precipitates with metal cations (Column 3 lines 21-28), and water (Column 2 lines 13-31), forming the combination into a homogenous mixture (Column 2 lines 38-40), mixing the homogenous mixture with a solution containing the gelling agent calcium chloride, i.e. a solution of a metal cation with a valency of at least 2 to form a fibrous product (Column 2 lines 41-46 and Column 7 lines 1-21), and isolating the fibrous product (Column 7 lines 48-52). Shenouda teaches that flavoring and fats can be added to the composition (Column 3 lines 1-14). Shenouda teaches that the pH of the final composition is adjusted to about 7 (Example 8). Shenouda teaches that a sequesterant including sodium tripolyphosphate (i.e. a calcium complex forming agent) is added to the gelled composition (Column 8 lines 15-55). Shenouda teaches that the calcium chloride, i.e. the calcium complex forming agent is sufficient to form a complex with free calcium ions (Column 7 lines 1-36).

Shenouda is silent to the combined mixture as formed in the presence of a calcium complex forming agent as recited in claim 1, wherein a mixture of protein and water is made, then the calcium complex forming agent is added to this mixture, and

then the hydrocolloid which precipitates with the metal cation is introduced as recited in claim 2, to the sequesterant as sodium polyphosphate (NaPO_3)₂₅ as recited in claim 6 or trisodium phosphate as recited in claim 27, to the amount of sequesterant or phosphate material as recited in claim 8, to the pH of the homogenous mixture as 4-7 as recited in claim 11, to the pH of the final product as 4.5-6 as recited in claim 13.

Monsanto teaches of forming a gelled high protein meat substitute (abstract and page 3 lines 1-4). Monsanto teaches that the method of preparing the product comprises: combining water with gellan gum i.e. a hydrocolloid which precipitates with metal cations, such as sodium alginate, and then adding dairy protein to the mixture. Monsanto teaches that a sequesterant, such as trisodium phosphate can be added to the hydrocolloid mixture so that the protein does not precipitate at elevated temperatures. Refer to page 6 lines 8-35. Monsanto teaches that the sequesterant is included at 0.1% (Example 9).

Regarding the combined mixture as formed in the presence of a calcium complex forming agent, wherein a mixture of protein and water is made, then the calcium complex forming agent is added to this mixture, and then the hydrocolloid which precipitates with the metal cation, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a sequesterant, i.e. a calcium complex forming agent, with the hydrocolloid or the protein, so that when combined the hydrocolloid would not precipitate with the protein in high temperatures, as taught by Monsanto. To add the sequesterant or calcium complex forming agent into the hydrocolloid mixture or the protein mixture would not make a patentable distinction to the claims, as long as the sequesterant was present prior to combining the hydrocolloid and protein. It would have been obvious to switch the order of performing process steps, i.e. the order of the addition of the ingredients into the final mixture such as adding phosphate to the protein mixture prior to adding alginate, would be obvious absent any clear and convincing evidence and/or arguments to the contrary (MPEP 2144.04 [R-1]). "Selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results".

Regarding the sequesterant as sodium polyphosphate (NaPO_3)₂₅ or trisodium phosphate, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute one functional equivalent, i.e. sequesterant or calcium complex forming phosphate, such as sodium tripolyphosphate, for another functional equivalent, such as sodium polyphosphate (NaPO_3)₂₅ or trisodium phosphate depending on which sequesterant or calcium complex forming phosphate was more available at the time the invention was made. To substitute one functional equivalent for another would not make a patentable distinction to the claims absent any clear and convincing arguments and/or evidence to the contrary.

Regarding the amount of sequesterant or phosphate material, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include about 0.1% of sequesterant in order to prevent the protein from precipitating as taught by Monsanto. To choose an amount of sequesterant or phosphate material depending on protein precipitation level would have been obvious and routine determination of one of ordinary skill in the art at the time the invention was made and would not impart a patentable distinction to the claims, absent any clear and/or convincing arguments and/or evidence to the contrary.

Regarding the pH of the homogenous mixture as 4-7, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the pH of the homogenous mixture in order to effect gelling as taught by Shenouda (Column 7 lines 3-7). To do so would have been obvious and routine determination of one of ordinary skill in the art at the time the invention was made as taught by Shenouda.

Regarding the pH of the final product as 4.5-6, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the pH of the final product depending on the final texture desired as taught by Shenouda (Example 8). To do so would have been obvious and routine determination of one of ordinary skill in the art at the time the invention was made as taught by Shenouda.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shenouda (US 4423083) in view of Monsanto et al (WO 96/13177), further in view of Lusas et al. (US 5300312).

Shenouda teaches a method for the preparation of a meat substitute product as discussed above. Shenouda is silent to the meat substitute product as pasteurized as recited in claim 21 or as packaged as recited in claim 22.

Lusas teaches of a meat substitute product which may contain animal proteins (Abstract and Column 4 lines 40-45). Lusas teaches that the product is pasteurized in order to minimize the extent of future microbial proliferation and spoilage (Column 4 lines 62-68). Lusas teaches that the product may be packaged so that it may be sold in vending machines and at news stands (Column 7 lines 1-8).

Regarding the meat substitute product as pasteurized, it would have been obvious to one of ordinary skill in the art at the time the invention was made to pasteurize the meat substitute product as taught by Lusas in order to prevent future microbial proliferation and spoilage.

Regarding the meat substitute product as packaged, it would have been obvious to one of ordinary skill in the art at the time the invention was made to package the substitute meat product, as taught by Lusas, so that it could be conveniently sold in locations such as in vending machines and on news stands.

Response to Arguments

Applicant's arguments with respect to the 102(a) rejections of Tetsuo and Shenouda and the 103(a) rejections depending from the 102(a) rejections of Tetsuo and Shenouda have been considered but are moot in view of the new ground(s) of rejection. As discussed above, the 102(a) rejections over Tetsuo and Shenouda were withdrawn in light of applicants amendments made August 21, 2008.

Applicant's arguments with respect to the 102(a) rejection over Monsanto have been fully considered but they are not persuasive.

Applicant argues that Monsanto does not disclose of an isolated fibrous product produced by the method as recited in claim 1. Applicant is referred to Monsanto, page

6, which teaches that the method of preparing an isolated fibrous product comprises: combining water with gellan gum i.e. a hydrocolloid which precipitates with metal cations, such as sodium alginate, and then adding dairy protein to the mixture, and then adding a mixed solution with a metal cation with a valency of at least 2 to form the isolated product. Monsanto teaches that a sequesterant, such as trisodium phosphate can be added to the hydrocolloid mixture so that the protein does not precipitate at elevated temperatures. Refer to page 6 lines 8-35.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e. the calcium complex forming agent or sequesterant as added to a preformed protein water mixture and then adding the hydrocolloid) are not recited in the rejected claim(s). Although the limitations are recited in claim 2, the 102(a) rejection over Monsanto does not include claim 2; the limitations are not recited in the rejected claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly Bekker whose telephone number is (571)272-2739. The examiner can normally be reached on Monday through Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lien Tran/
Primary Examiner
Art Unit 1794

/Kelly Bekker/
Examiner
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